

AMENDMENTS TO THE CLAIMS:

Please cancel claim 7, without prejudice or disclaimer of the subject matter thereof, amend claims 1 and 2, and add new claims 8-13 as follows. This listing of claims will replace all prior versions and listings of claims in the application:

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1. (Currently Amended) A method for fabricating a CMOS image sensor having a plurality of unit pixels, comprising:

- a) providing a semiconductor structure having a photodiode on a semiconductor substrate;
- b) forming an insulating layer covering the semiconductor structure including the photodiode;
- c) forming a dielectric layer having hydrogen ~~[[over]]~~ on the insulating insulating layer;
- d) diffusing hydrogen ions from the dielectric layer into the photodiode; ~~[[and]]~~
- e) removing the dielectric layer; and
- f) forming a metal line by sequentially depositing Ti/Al/TiN layers after an isotropic etching operation is carried out on the insulating layer.

2. (Currently Amended) The method as recited in claim 1, wherein the step of forming a dielectric layer includes forming it with a material selected from a group consisting of ~~silicon oxide~~ (SiO_x) SiO_x , ~~silicon nitride~~ (SiN_x) SiN_x , [~~silicon oxide nitride~~ (SiO_xN_y) SiO_xN_y and Si_3N_4 .

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3. (Original) The method as recited in claim 2, wherein the step of forming a dielectric layer includes plasma enhanced chemical vapor deposition (PECVD).

4. (Original) The method as recited in claim 1, wherein the step of diffusing hydrogen ions includes thermal treatment.

5. (Original) The method as recited in claim 1, wherein the step of removing the dielectric layer includes dry etching or wet etching.

6. (Original) The method as recited in claim 1, wherein the step of forming a dielectric layer includes depositing it to a thickness of 7000 Å to 8000 Å.

7. (Canceled)

8. (New) A method for fabricating a CMOS image sensor having a plurality of unit pixels, comprising:

a) providing a semiconductor structure having a photodiode on a semiconductor substrate;

b) forming an insulating layer covering the semiconductor structure including the photodiode;

c) forming a dielectric layer having hydrogen on the insulating layer above an upper portion of the photodiode;

d) diffusing hydrogen ions from the dielectric layer into the photodiode; and

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e) removing the dielectric layer.

9. (New) The method as recited in claim 8, wherein the step of forming a dielectric layer includes forming it with a material selected from a group consisting of SiO_x , SiN_x , SiO_xN_y , and Si_3N_4 .

10. (New) The method as recited in claim 9, where in the step of forming a dielectric layer includes plasma enhanced chemical vapor deposition (PECVD).

11. (New) The method as recited in claim 8, wherein the step of diffusing hydrogen ions includes a thermal treatment.

12. (New) The method as recited in claim 8, wherein the step of removing the dielectric layer includes a dry etching or a wet etching.

13. (New) The method as recited in claim 8, wherein the step of forming a dielectric layer includes depositing it to a thickness of 7000 Å to 8000 Å.

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